

# INTERNATIONAL SEARCH REPORT

International Application No  
P1 US2004/019017

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 G01N33/50 G01N33/68 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 G01N C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)  
EPO-Internal

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/60408 A (SCI PHARMACEUTICALS INC ; POLANSKY HANAN (US)) 23 August 2001 (2001-08-23) claims 26,36 & WO 01/35096 A (ANDERSON CHRISTEN M ; CLEVINGER WILLIAM (US); MITOKOR (US); BECKER DAV) 17 May 2001 (2001-05-17) -----	17-22
X	WO 00/47735 A (SLADEK ROBERT ; UNIV MCGILL (CA); GIGUERE VINCENT (CA); LUO JIANG MING) 17 August 2000 (2000-08-17) claims 17,18,28 -----	17-22
A	WO 01/35096 A (ANDERSON CHRISTEN M ; CLEVINGER WILLIAM (US); MITOKOR (US); BECKER DAV) 17 May 2001 (2001-05-17) claims 19-25 -----	17-22

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

15 December 2004

Date of mailing of the International search report

01.04.05

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## INTERNATIONAL SEARCH REPORT

International Application No  
PCT US2004/019017

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 1 284 291 A (YAMANOUCHI PHARMA CO LTD) 19 February 2003 (2003-02-19) claims 5-8	17-22
A	SCHREIBER S N ET AL: "The transcriptional coactivator PGC-1 regulates the expression and activity of the orphan nuclear receptor estrogen-related receptor alpha (ERRalpha)" JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, BALTIMORE, MD, US, vol. 278, no. 11, 14 March 2003 (2003-03-14), pages 9013-9018, XP002253785 ISSN: 0021-9258 cited in the application the whole document	17-22

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International application No.  
PCT/US2004/019017

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: 1-16, 23-41, 42-105  
because they relate to subject matter not required to be searched by this Authority, namely:  
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy, see claims 23-41.
2.  Claims Nos.: 1-16, 23-41, 42-105  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  
1-41

### Remark on Protest

The additional search fees were accompanied by the applicant's protest.  
 No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.1

Claims Nos.: 1-16,23-41,42-105

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy, see claims 23-41.

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Continuation of Box II.2

Claims Nos.: 1-16,23-41,42-105

Present claims 1-16, 23-41 relate to the use of a product (agent), that product being defined by reference to a desirable characteristic or property, namely "which increases the activity of Erralpah or Gabp". The claims 1-16,23-41 cover the use of all products having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of the use of such products. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the product by reference to a result to be achieved (cf. present claim 17-22). Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, the search has not been carried out for these claims 1-16,23-41.

Present claims 18-22 relate to an extremely large number of possible compounds (agents) to be identified. In fact, the claims contain so many options, variables, possible permutations that a lack of clarity (and conciseness) within the meaning of Article 6 PCT arises to such an extent as to render a meaningful search of the claims impossible. Consequently, the search for claims 18-22 has been carried out for those parts of the application which do appear to be clear (and concise), namely according to the subject-matter of claim 2.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

overcome.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-41

determining and use of an agent that modulates activity of erralpha or gabp polypeptide.

2. claims: 42-50

identifying a sequence in a gene having an erralpha or a gabp binding site.

3. claims: 93-105

identifying an agent that has the ability of a coordinated expression of OXPHOS-CR genes.

4. claims: 51-77

identifying a transcriptional regulator in cells.

5. claims: 78-92

detecting the expression level of a biomarker in experimental groups.

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International Application No

PCT, US2004/019017

Patent document cited in search report	Publication date	Patent family member(s)			Publication date
WO 0160408	A 23-08-2001	US 2003092601 A1			15-05-2003
		AU 4319001 A			27-08-2001
		CA 2395473 A1			23-08-2001
		EP 1257263 A2			20-11-2002
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		WO 0135096 A2			17-05-2001
		US 2002049176 A1			25-04-2002
EP 1284291	A 19-02-2003	AU 6061501 A			03-12-2001
		EP 1284291 A1			19-02-2003
		US 2004115626 A1			17-06-2004
		WO 0190356 A1			29-11-2001